Claim 6, line 2, delete "11 or".

REMARKS

Claims 3, 5-68 and 15-17 are pending in this application, of which claims 5 and 6 have been amended. Claims 4 and 11-14 have been canceled. No new claims have been added.

The Examiner has rejected the claims as follows:

1. Claims 11 and 13 under 35 USC §102(b) as anticipated by JP 58180091 to Maeda (hereinafter "**Maeda**");
2. Claims 3-6, 8, 11, 13 and 15 under 35 USC §103(a) as unpatentable over Applicants' Admitted Prior Art (hereinafter "**APA**") in view of **Maeda** and JP 4302444 to Koga (hereinafter "**Koga**");
3. Claims 12 and 16 under 35 USC §103(a) as unpatentable over the combination of **APA**, **Maeda**, **Koga** and further in combination with U.S. Patent 5,548,091 to DiStefano (hereinafter "**DiStefano**"); and
4. Claims 14 and 17 under 35 USC §103(a) as unpatentable over the combination of **APA**, **Maeda**, **Koga** and further in combination with U.S. Patent 5,115,545 to Fujimoto et al. ("**Fujimoto et al.**").

Applicants respectfully traverse these rejections.

All of these references were discussed in Applicants' response of August 25, 1999, where it was specifically argued that **Maeda** fails to teach or suggest that the electrical parts are held with pressure, as in the present invention.

The Examiner has urged, however, that application of such pressure would be inherent in

Maeda because **Maeda** teaches the use of a bonding head to mount the chips into the adhesive. Column 3, lines 3-5 disclose "loading the electronic parts on the printed circuit substrate and pressing them on the adhesive."

Maeda fails to teach, mention or suggest a second pressure application of pressure on the chips which is greater than the first application of pressure.

The Examiner has applied **Koga** for teaching two separate application steps, as noted in the Abstract of **Koga**:

> ... Then, since the surface of the anisotropically conductive film 7 is provided with adhesive power, the semiconductor element 1 is bonded temporarily to a substrate 5. The substrate 5 which has finished its temporarily bonding process is conveyed to a bonding sage 11 by using a substrate conveyance device 12: it is position (sic). A bonding head 25 is driven downward in a state that the temperature at its lower-end part is kept at 190°C; it presses many semiconductor elements (sic), ... in the direction of the substrate 5 at a definite pressure.

Koga fails to explicitly teach, however, that the second pressure is greater than the first pressure, as claimed in the present invention, as the Examiner has admitted. The Examiner has urged, however, that this would be an obvious choice ascertainable by routine experimentation. The Examiner has held that optimization of range limitations are prima facie obvious absent a disclosure that the limitations are for a "particular unobvious purpose, produce an unexpected result, or otherwise critical."

Applicants respectfully disagree and submit that such a claimed relation between the first and second pressure would require undue experimentation to produce. **Koga** fails to provide any reason why such relationship would be important.

DiStefano has been cited for teaching a heating step performed by a heat plate 58 on which a substrate is placed.

DiStefano is not combinable with **Maeda** to teach the present invention because, while **DiStefano** discloses conductive heating, which requires pressure, **Maeda** specifically discloses radiative heating without pressure.

Fujimoto et al. has been cited for teaching a single bonding head 52 for each chip "without the need for using heat or supersonic waves" (see Abstract of **Fujimoto et al.**"), which teaches away from the two heating steps claimed in the present invention.

DiStefano and **Fujimoto et al.** both fail to teach, mention, or suggest the two-step heating with pressure applied to the semiconductor chips as recited in claim 15 and none of the cited references teaches, mentions, or suggests the relationship between the pressure applied in the two heating steps, as recited in claim 15.

Thus, the §102(b) and §103(a) rejections should be withdrawn.

In view of the aforementioned amendments and accompanying remarks, claims 3, 5-6, 8 and 15-17, as amended, are in condition for allowance, which action, at an early date, is requested.

If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact Applicants' undersigned attorney, at the telephone number indicated below, to arrange for an interview to expedite the disposition of this case.

In the event this response is not timely filed, Applicants petition for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper, to Deposit Account No. 01-2340.

Respectfully submitted,

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Enclosure: Petition for Extension of Time